

New cold matter constraints from J/Psi suppression in d+Au from PHENIX

L. A. Linden-Levy
University of Colorado
390 UCB
Boulder, CO 80309
lindenle@colorado.edu

November 17, 2009

Abstract

Despite the strong suppression of J/ψ measured in gold-gold (Au+Au) collisions it is not entirely clear that the predicted golden signal of the sQGP is seen. The measured nuclear modification factor is convoluted with expected initial and final state interactions from cold nuclear matter that also cause significant suppression and modification of the charmonium spectrum. It is therefore essential to have a clear understanding of these cold nuclear matter effects. To this end, PHENIX has measured J/ψ spectrum from deuteron-gold (d+Au) interactions at $\sqrt{s_{NN}}=200\text{GeV}$. We will present the latest extraction of these cold nuclear matter effects from the 2008 RHIC run which has a factor of ~ 30 increase in integrated luminosity over the last RHIC d+Au run (2003).